

SPECIAL REVIEWS

STEPHEN JAY GOULD: *An Urchin in the Storm: Essays about Books and Ideas*. W. W. Norton, New York (1987). 255 pp.

This volume reprints 18 of Gould's reviews, mostly from *The New York Review of Books* and makes explicit his political outlook on the behavioral sciences. Whenever a hint of a suggestion arises that epigenetic factors may have a role to play in guiding historical phenomena, particularly inequalities in cultural, racial or socio-economic groups, Gould imagines himself turning into a hedgehog (the urchin of the book title): "he rolls up into a ball, nose against anus, and thrusts his prickles against the world" (p. 12). In the review of Lewontin, Kamin and Rose's *Not In Our Genes*, Gould openly endorses their "commitment to the prospect of the creation of a more socially just—a socialist—society" (p. 149) and so spiritedly defends "leftist scientists" in their combat of "biological determinism" (p. 151) that I was drawn to dub them the West's intellectual "Gang of Four". Together they explicitly believe that "the social function of much of today's science is to hinder the creation of that (just) society by acting to preserve the interests of the dominant class, gender, and race" (p. 149).

Against the hard fought for scientific maxim of maintaining as much detachment as possible (however difficult at times) Gould wants us to wallow in our passions, alternatively engaging in "vigorous self-scrutiny" (p. 150). In place of rigorous behavior-genetic studies of social behavior, including psychopathologies such as schizophrenia (critiqued in his review of *Not in Our Genes*), of precise psychometric analyses (critiqued in his review of Jensen's *Bias in Mental Testing*), and of sociobiological studies (critiqued in his reviews of Kitcher's *Vaulting Ambition* and Lumsden and Wilson's *Promethean Fire*), Gould advocates an end to "reductionism—the style of thinking associated with . . . the bourgeois revolution, with its emphasis on individuality. . . . to a holistic recognition that biology and culture interpenetrate in an inextricable manner. . . . In short, we must use . . . a dialectical approach" (p. 153). He goes on to quote Karl Marx: "philosophers thus far have only interpreted the world in various ways; the point, however, is to change it" (p. 154).

It is a tiresome theme that has pervaded academia and the 'Liberal New Left' throughout my entire academic career (begun as an undergraduate in 1967) and goes back to the 'Old Left' of the 1920s when Karl Mannheim at the London School of Economics was publicizing the new sociological version of Marxist doctrine which claimed that even scientists and scholars were motivated by their class interests, and that non-Marxist theories were not to be trusted, as they were the products of upper and middle class scholars whose primary interest was to defend their own class interests. Perhaps there is some truth in the theory although it seems to me that most upper-middle class academics are currently left of centre; one could go further and postulate that ideologies also reflect genetic interests (Rushton, 1989). Obviously, numerous sources of bias operate but surely the scientists we should try to emulate are the ones who have managed to transcend the particulars of their individual circumstances in order to observe truth more closely. Here Gould is an unreliable guide because his rapacious desire to deliver a political message permeates all. In his reviews of the biographies of notable scientists E. E. Just (an experimental embryologist) and Barbara McClintock (the Nobel Laureate who discovered 'jumping genes'), Gould gives no quarter, excoriating yet again white racism and sexism.

Gould's writing style is always smooth and clever and spiced throughout with humor, irony and sarcasm, often engagingly inviting readers to gloat along with him at the 'biological determinists' (anyone who tries to estimate genetic contributions to a cultural difference) and 'pop sociobiologists' (anyone who hypothesizes the adaptive function of a cultural difference). Thus after many years of hard intellectual labor trying to model (however successfully) the relations between genetic and cultural evolution, Lumsden and Wilson are openly jeered at and the essence of their work attributed to Friedrich Engels who, it is claimed, anticipated them 100 years earlier. Not that Lumsden and Wilson could ever have known this, of course: "Ironically, for the man's work is anathema to Wilson, who senses the evil influence of Marxism behind all radical criticism of his sociobiology" (p. 111).

A favorite dislike of Gould's is the view that natural phenomena can be scaled as 'higher' or 'lower'. Thus J. T. Bonner's attempt in *The Evolution of Culture in Animals* to relate the time of appearance of an animal group in earth history to both its brain size and its cultural achievements becomes a suitable target for a review by Gould. Bonner, to Gould, gives the game away by letting slip the phrase "lesser animals". Rather than holding forth with his usual mini-lecture, Gould appears restrained, sadly noting only: "But perhaps the proper lesson of this observation simply affirms Darwin's aphorism: 'never say higher or lower'." Gould concludes: "And if we abandon the venerable chain of being, we lose the most promising frame for viewing human culture in biological terms as an extension, almost a necessary one, of longstanding evolutionary trends" (p. 66).

This is insidious scholarship! I would probably not have noticed the subterfuge in Gould's analysis had I not been reading a discussion of virtually the same quote from Darwin in two books by Ernst Mayr (1982, 1988). In his *Toward a New Philosophy of Biology*, Mayr (1988) tells us that Darwin had written on the margin of one of the books in his possession "Never use the words higher or lower" (p. 251). Thus the remark is an aside of uncertain status rather than a central component of Darwin's philosophy. Mayr (1982) elaborates on page 531 in *The Growth of Biological Thought*:

Of course, Darwin did not follow his own advice and referred in the *Origin* frequently to evolutionary progress (pp. 149, 336–338, 388, 406, 441 and 489). This was necessary not only to refute Lyell's concept of a steady-state world but also to counter a newly developed school which denied any difference in perfection between the simplest and the most complex organisms. . . . an implicit denial of improvement through natural selection. Darwin realized that (although) "naturalists have not as yet defined to each other's satisfaction what is meant by high and low forms . . . The most recent forms must, on my theory, be higher than the more ancient; for each new species is formed by having had some advantage in the struggle for life over other and preceding forms" (*Origin*: 337).

How very different a conclusion readers may have arrived at concerning Bonner's book on animal cultures if Gould, a noted Darwinian scholar, had only more fully informed them of what Darwin had really said.

Gould's untrustworthiness on this issue also surfaced in his review of *The Enchanted Loom* by R. Jastrow, a book on the future of machine intelligence. Jastrow considers that there has been an "inexorable trend toward greater intelligence" in evolution. Gould, clearly, does not. He cites (p. 211) the authority of Darwin as if settling the matter. "After long

reflection, I cannot avoid the conviction that no innate tendency to progressive development exists". Quite so, but as the previous quotation from Darwin makes clear, Darwin only disbelieved in an innate, *teleological*, drive to perfection; progress to him was caused by random variation and natural selection (see Mayr, 1982, for discussion). Thus qualified, Jastrow's thesis can remain intact and Gould has done another disservice to his readers.

Gould's unreliability as a guide to matters bearing on human phenomena is becoming increasingly well known. His 1981 work *The Mismeasure of Man* has not at all withstood the test of time. It appears that bias is more manifest in the writing of S. J. Gould than researchers like the physical anthropologist S. G. Morton (1799–1851), one of the giants of the American scientific community of his time, whom Gould attempted to discredit. Gould had charged that Morton 'unconsciously' doctored his results on racial-group differences in cranial capacity in order to show Caucasian racial superiority. Michael (1988) remeasured a random sample of the Morton collection of human crania to check Gould's assertions and found that, in fact, very few errors occurred and these were not in the direction Gould had claimed. Instead, errors were found in Gould's assessment, and Michael concluded that Morton's research "was conducted with integrity" (while) "Gould is mistaken" (p. 353). Similarly a spate of correctives in the September 1988 issue of the *American Psychologist* has shown that Gould's charge of 'conscious skullduggery' in Goddard's (1912) study of the heritability of feeble-mindedness in the Kallikak family was unwarranted. Gould had claimed that Goddard's photographs were 'phonied' by inserting heavy lines to give eyes and mouth a 'diabolical appearance'. However, not only was such retouching quite common during the period but, in any case, the retouched photographs actually strike judges (in an empirical test) as appearing kindly!

Ultimately, therefore, the hedgehog metaphor of Gould's title is a poor one and clearly self serving. In many of his writings Gould has exerted a pernicious influence. I believe that history will judge him to have been a highly gifted man who chose to use his talents to try to hold back a true understanding of human gene-culture coevolution; a Darwinian unable to meet the honorable standards of his predecessor; a practising scientist who sold out to the value system of his political world view. Not the inoffensive little hedgehog.

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